

DELIVERY SYSTEM FOR PECVD POWERED ELECTRODE

ABSTRACT OF THE DISCLOSURE

Gas delivery devices for PECVD systems and methods for using such systems are described. The delivery device goes directly through the powered electrode and thereby bypasses components of the PECVD systems used to support that electrode. The delivery device contains a coupling device between the powered electrode of the PECVD reactor and the gas inlet line. The gas inlet line is electrically and thermally isolated from the powered electrode and is sealed to maintain the vacuum integrity of the PECVD reactor through the use of a coupling device. Thus, gases from the heated gas lines can be routed directly through the powered electrode and fed into the reactor via the showerhead without having a cold area between the showerhead and gas inlet line.